



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX**

**75 Hawthorne Street
San Francisco, CA 94105**

**Certified Mail No. 7000 1670 0010 2049 4366
Return Receipt(s) Requested**

March 9, 2006

**Mr. William C. Ford
Senior Vice President
National Stone, Sand and Gravel Association
1605 King Street
Alexandria, Virginia 22314-2726**

**Dr. R. J. Lee
R.J. Lee Group, Inc.
350 Hochberg Road
Monroeville, Pennsylvania 15146**

Dear Mr. Ford and Dr. Lee:

The United States Environmental Protection Agency Region IX ("EPA") has received the report, EVALUATION OF EPA'S ANALYTICAL DATA FROM THE EL DORADO HILLS ASBESTOS EVALUATION PROJECT (the "R.J. Lee Report"), prepared by the R.J. Lee Group, Inc. ("R.J. Lee Group") for the National Stone, Sand and Gravel Association (the "Association"). As you know, the R.J. Lee Report analyzes EPA's sampling and conclusions regarding the nature and extent of risks from disturbed naturally occurring asbestos in El Dorado Hills, California, and the impact on the local communities. Because critique is necessary to forge better scientific principles and conclusions, particularly in regard to developing issues such as naturally occurring asbestos, EPA is closely reviewing the R.J. Lee Report as part of its efforts to improve its understanding of the nature and extent of risks in El Dorado Hills.

The R.J. Lee Report presents methods of analysis and conclusions that are significantly different than the methods and conclusions of EPA, underscoring the fact that the scientific debate toward understanding the risks from naturally occurring asbestos may continue for some time. Understanding the methods and conclusions of the R.J. Lee Report is important to understanding the potential risks attendant in El Dorado Hills. To avoid assumptions and facilitate a fair and complete review of the R.J. Lee Report, and thereby expedite a better understanding of the issues, EPA requests your response to specific questions regarding the methods and supporting information considered in the R.J. Lee Report. EPA believes that posing these questions directly to you will provide the most expedient means to continue the relevant scientific inquiry for the benefit of the

Questions regarding the R.J. Lee Report

1. Please list the analytical techniques (including full method name and reference number) that the R.J. Lee Group used to evaluate the EPA air samples. Please provide all documents generated as a result of that analysis including: laboratory count sheets, laboratory notes and logbook pages, sketches, images, spectra, diffraction patterns, chain-of-custody forms and other sample tracking sheets. Provide the same information for any and all quality control ("QC") samples analyzed along with the investigative samples and all required calibrations and other technical notes generated during the review of the EPA air samples. Please include a general description of the instruments (including make and model) used in the analyses and provide the analyst's names and qualifications to perform analysis for each of the analytical/preparation methods employed. If no actual laboratory analysis was performed, or if, in addition to laboratory analyses, other reviews were performed, identify such reviews, explain the steps taken for conducting the review, and provide all available documents of such reviews.
2. Please list the soil preparation methods the R.J. Lee Group used to prepare splits of the EPA soil samples for analysis. A complete response to this inquiry will include information on whether a microscopic/stereoscopic analysis of the soil samples was conducted prior to any sample handling or preparation, drying times, moisture content, grinding (types and brands of grinders), sieving (sizes), and any other information required to provide a complete description of the preparation procedure used by the R.J. Lee Group for splits of the EPA soil samples.
3. Please list the analytical techniques (including full method name and reference number) that the R.J. Lee Group used to evaluate splits of the EPA soil samples. Please provide all documents generated as a result of that analysis including: laboratory count sheets, laboratory notes and logbook pages, sketches, images, chain-of-custody forms and other sample tracking sheets. Also include the same information for any and all QC samples analyzed along with the investigative samples, all required calibrations, and any other technical notes generated during the analyses of splits of the EPA soil samples. Please include a general description of the instruments (including make and model) used in the analyses and provide the analysts' names and qualifications to perform analyses for each of the analytical/preparation techniques employed. Regardless of method, please provide laboratory count sheets and a full description of all exceptions or modifications to the analytic techniques.
4. Please submit all documents regarding the R.J. Lee Group's quality assurance/quality control ("QA/QC") procedures for asbestos analyses. Please include in this response information regarding the processes for and results of laboratory monitoring, sample preparation, laboratory analysis, data management, laboratory certifications, internal and external report review processes, and internal and external peer review processes. Please also include all Standard

- c. How the R.J. Lee Group in the R.J. Lee Report distinguished between the signal of an amphibole structure from the aluminum signal from aluminum-rich clay particles adhered to the amphibole structures when performing an EDS analysis;
 - d. How the R.J. Lee Group in the R.J. Lee Report distinguished or otherwise considered in its comparison based on zone axis indices the EPA soil samples containing mixed-sized particulates from the reference of asbestos sample standards;
 - e. How, during a Polarized Light Microscopy ("PLM") analysis, the R.J. Lee Group in the R.J. Lee Report allowed for the presence of both asbestiform and nonasbestiform habits of the same mineral to be present in a rock or soil sample;
 - f. Whether the asbestos amphibole fibers that the R.J. Lee Group counted for the R.J. Lee Report only included the six regulated asbestos mineral types that exhibit an asbestiform habit (>20:1 or 50:1 aspect ratio) and exhibit parallel extinction;
 - g. During a normal PLM analysis, whether the R.J. Lee Group in the R.J. Lee Report would consider parallel extinction to be a definitive indicator that an amphibole fiber is an asbestos fiber;
 - h. Whether asbestos fibers supplied by the National Institute of Standards and Technology ("NIST") Standard Reference Materials ("SRM") 1867 and 1867a, as referenced in the R.J. Lee Report, ever exhibit inclined extinction angles;
 - i. During transmission Electron Microscopy ("TEM") or PLM, whether the R.J. Lee Group in the R.J. Lee Report would consider rounded terminations to be a definitive indicator that amphibole fiber is not an asbestos fiber.
8. Please provide a step-by-step description of the method and all the information sources used to perform the verified count in the R.J. Lee Report for its allocation of true and false positive values and provide supporting documents.
 9. Please provide all of the spectral data and supporting references for the R.J. Lee Group's mineral identifications relevant to the R.J. Lee Report, including all documentation of raw data, calculations, equations, and the supporting references.
 10. Please provide a copy of any written procedures employed by the R.J. Lee Group that describe how reference standards are used to verify the accuracy of an analyst's ability to correctly determine the optical properties of asbestos.
 11. Please provide any written procedures or instructions given to analysts when the R.J. Lee Group performs a National Institute of Occupational Safety and Health (NIOSH) 7400 method analysis, an Asbestos Hazard Emergency Response Act (AHERA) method analysis or a California Air Resources Board AHERA-

citizens in El Dorado Hills, and requests that you provide your response within sixty (60) days.

Please direct your response to:

Jere Johnson
United States Environmental Protection Agency
Superfund Division (SFD-9-1)
75 Hawthorne Street
San Francisco, California 94105

Please direct any questions regarding the questions to Jere Johnson, at (415) 972-3094.
You also may call me directly at (415) 972-3132.

Sincerely,

A handwritten signature in dark ink, appearing to read 'D. Meer', written over a horizontal line.

Daniel A. Meer, Chief
Response, Planning and Assessment Branch
Superfund Division

Operating Procedures ("SOPs"), Laboratory Quality Assurance Plans or other information relevant to or generated during the R.J. Lee Group's analyses of the EPA soil and air samples.

5. Please identify the supporting documents or information that were made available to the Association or the three outside reviewers of the R.J. Lee Report for their respective review of the quality of the R.J. Lee Report or the quality of the data supporting the R.J. Lee Report. In addition to this statement, please also provide the documents or information in the statement that are not otherwise provided in response to this Information Request. Documents responsive to this request may include: SOPs; QA/QC procedures; performance evaluation samples; third party audits; notes; analytical techniques; literature cited in the R.J. Lee Report; other scientific literature; R.J. Lee Group procedures and documentation; written communications, phone logs; and electronic mail.
6. Please provide a statement describing the R.J. Lee Group's QA/QC procedures for each analytic technique to ensure consistency in measurements of asbestos with particulate loading or asbestos in soil (e.g., structure identification, mineral identification, diffraction patterns, reported concentrations, etc.) within the laboratory and among two or more analysts examining any respective sample. The statement should include, for each analytical technique relevant to the R.J. Lee Report, the R.J. Lee Group's variability rate among its analysts for samples of asbestos with particulate loading or asbestos in soil. Please also provide all documents that support the determination or assessment of the variability rates.
7. Please provide all documents that support or explain the following issues raised by the R.J. Lee Report:
 - a. The character of fibers counted as asbestos fibers in the R.J. Lee Report, specifically those relevant to establishing limitations on width or the exclusion of "cleavage fragments," considering the May 30, 2003 REPORT ON THE PEER CONSULTATION WORKSHOP TO DISCUSS A PROPOSED PROTOCOL TO ASSESS ASBESTOS-RELATED RISK,¹ which addresses protocols on assessing asbestos related risks under the Berman-Crump method, and which recommended counting "cleavage fragments" that have equal durability and dimension as asbestos fibers, and recommended, to account for inhalation through the mouth, counting fibers up to 1.5 microns in width;
 - b. How the R.J. Lee Group in the R.J. Lee Report distinguished between the presence of Fe³⁺ and Fe²⁺ found in amphibole minerals when performing an Energy Dispersive Spectroscopy ("EDS" or "EDXA" in the R.J. Lee Report) analysis;

¹ Prepared by Eastern Research Group, Inc. under EPA contract No. 68-C-98-148, Work Assignment 2003-05.

modified method analysis, including procedures regarding which aspect ratios are included in the count, whether or not all chrysotile or amphibole particles with the ratios that meet the method definition are included in the count, and any modifications to these methods. Please provide supporting documents, including any laboratory analysis bench sheets and reports with laboratory-identifying information redacted.

12. How would the R.J. Lee Group, when using an asbestos regulatory air analytical method (i.e., NIOSH or AHERA) or International Standards Organization ("ISO") method 10312, count bundles of asbestos fibers?
13. How the R.J. Lee Group, when analyzing the selected area electron diffraction ("SAED") pattern of an amphibole mineral fiber, would distinguish between asbestos and non-asbestos mineral fibers?